From:	JOHNSON Keith
To:	POULSEN Mike; CYRIL Alex; BELETE Etsegenet; Jonathan Freedman/R10/USEPA/US@EPA; Chip Humphrey/R10/USEPA/US@EPA; ANDERSON Peter
Cc:	PUENT Sally; JOHNSON Keith
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See what you think. I'd like to send today by early PM. Thanks to Mike P for writing the meaty technical portions.

DEQ has had some internal discussions between our Cleanup, 401 and toxicologists regarding issues at the PO Bar. We appreciate Tim's work on this issue and have done a limited review and can provide the following comments:

Tissue Data for BSAF Calculations

The primary bioaccumulation receptors that should be evaluated are higher trophic organisms, particularly for human health exposure. When there are available data for fish tissue, such as in the Portland Harbor federal superfund site, these data should be used in preference to data from benthic organisms such as *Lumbriculus*. We recommend evaluating small mouth bass data on a river-mile basis to determine BSAFs. It may also be useful to evaluate sculpin data because of their smaller home-ranges.

BSAFs should be calculated for paired sediment/tissue data, rather than by calculations using overall mean data. For small mouth bass data, there will be fewer values because fish composites were used.

Exposure Parameter Values

Decisions regarding exposure factor values for the Portland Harbor human health risk assessment have been discussed by the federal and state regulatory agencies, the tribes, and the Lower Willamette Group for the past eight years. In addition to the agreements reached for the Portland Harbor site, DEQ has bioaccumulation guidance with established default values. It is inappropriate to vary substantially from these values without sufficient justification. For instance, an appropriate fish ingestion rate for regulatory decision making is the subsistence fisher rate of 142 g/day. A rate of 6.7 g/day is inappropriate in an area of known fishing. DEQ's Water Quality program has recently approved a consumption rate of 175 g/day for calculations of Ambient Water Quality Standards, which is consistent with Portland Harbor's current assumptions.

We would need further review to evaluate the appropriateness of considering 1 year of exposure from fish consumption instead of 30 years based on an assumed sediment deposition rate (or 3 years; it is unclear which value is proposed). If so, we should have confirmation that deposition over contaminated sediments is occurring.

The use of fraction of home-range for fish has been applied to other sites, and is discussed in our bioaccumulation guidance. Is it appropriate to apply this concept to a

small portion of a large federal superfund site?

Chemical Interferences

- There have been many instances of interferences, particularly between PCBs and DDX compounds, affecting the quantitative results of chemical analyses. EPA can assist with evaluating the results at Post Office Bar to determine if there are analytical issues.

As I see it the paths forward to resolving the situation are as follows:

1. Continue technical discourse to resolve outstanding risk assessment issues. This option has an uncertain outcome, nor does DEQ have the resources, barring outside funding, to continue this level of discussion on this area. A cost recovery agreement or IGA between DEQ and one of the sponsoring parties could provide a partial solution.

2. Discuss and agree upon a long term evaluation that could be undertaken to monitor the quality of exposed sediment to understand what's exposed, and ensure attenuation is proceeding. Given our current understanding of the Portland Harbor data and range of background values emerging for PCBs, this approach appears generally consistent with a future CERCLA remedy that would be applied.

3. If PRG concurrence is not required by the Corps, jurisdiction in this area would primarily lie at the Federal level (being that the site is in Portland Harbor), and those parties can reach appropriate agreement.

Keith

Keith Johnson, Manager
Northwest Region Environmental Cleanup Program
Oregon Department of Environmental Quality
Phone: 503-229-6431
Email: johnson.keith@deq.state.or.us

"View every problem as a stepping stone, not a stumbling block"